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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,706	04/13/2004	Tomotoshi Senoh	086142-0629	2928
22428 7590 06/15/2009 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007				
EXAMINER				
KAYES, SEAN PHILLIP				
ART UNIT		PAPER NUMBER		
2833				
MAIL DATE		DELIVERY MODE		
06/15/2009		PAPER		

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* TOMOTOSHI SENOH and TETSUO YOSHIDA

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Appeal 2009-002308  
Application 10/822,706  
Technology Center 2800

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Decided:<sup>1</sup> June 15, 2009

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Before KENNETH W. HAIRSTON, JOHN A. JEFFERY,  
and THOMAS S. HAHN, *Administrative Patent Judges*.

HAHN, *Administrative Patent Judge*.

DECISION ON APPEAL

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-13. We have jurisdiction under 35 U.S.C. § 6(b). We affirm-in-part, and enter a new ground of rejection under 37 C.F.R. § 41.50(b).

### STATEMENT OF THE CASE

Appellants claim invention of a device for weighing a seated vehicle passenger. The weight being measured is applied to a resilient member, i.e., an arm that has one end supported at a support point. The other end of the resilient member is in communication with a sensor plate that has an attached load sensor. The sensor plate is attached to a sensor support. Thus, the resilient member is mounted from the support point, and the resilient member, through communication with the sensor plate, also is mounted from the sensor support. The weight being measured is applied to the resilient member between the support point and the load sensor that is attached to the sensor plate.<sup>2</sup> Claims 1 and 7 are illustrative:

1. A device for measuring a weight of a seat, including a weight of an occupant sitting on the seat, the device comprising:  
a resilient member supported by at least one support point; and  
a load sensor supported by a sensor plate and a sensor support and in communication with the resilient member and positioned to receive the weight of the seat, wherein the sensor support is formed on an underside of the sensor plate;  
wherein the device is configured so that the weight of the seat is applied between the at least one support point and the sensor support.

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<sup>2</sup> See generally Spec. ¶¶ 0001, 0025, 0026, 0031, 0040, 0042, 0047, and 0048; Figs. 1(A), 1(B), 2(A), 2(B), 3(A), and 3(B).

7. A device for measuring seat weight including a weight of an occupant sitting on a seat, the device comprising:

a base having two side plates;

an arm rotatably supported by and interdisposed between the side plates of the base via a base pin;

a pin bracket in communication with the arm via a bracket pin and further adapted to be in communication with the seat, wherein the bracket pin is partially located between the two side plates of the base; and

a load sensor in communication with the arm; and

wherein the pin bracket is located between the base pin and the load sensor.

The Examiner relies on the following prior art references to show unpatentability:

Aoki ("Aoki '325")	US 6,069,325	May 30, 2000
Aoki ("Aoki '444")	US 6,323,444 B1	Nov. 27, 2001
Cooper	US 6,448,512 B1	Sep. 10, 2002

1. The Examiner rejected claims 1, 2, 4-8, 10, and 11 under 35 U.S.C. § 102(b) as anticipated by Cooper (Ans. 3-12).<sup>3</sup>

2. The Examiner rejected claims 12 and 13 under 35 U.S.C. § 103(a) as unpatentable over Cooper and Aoki '325 (Ans. 13-14).

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<sup>3</sup> Claim 11 is neither listed nor discussed in the reported § 102 rejection (Ans. 3-12), but Appellants list claim 11 as being appealed from the § 102 rejection (*See* App. Br. 8). The Examiner confirms that the Appeal Brief's "Status of Claims," "Summary of Claimed Subject Matter," and "Claims Appendix," which all include claim 11 as rejected under § 102 or reference claim 11 as appealed, are "correct" (Ans. 2, 3). Accordingly, we presume the Examiner intended to include claim 11 in this rejection.

3. The Examiner rejected claims 3 and 9 under 35 U.S.C. § 103(a) as unpatentable over Cooper and Aoki '444 (Ans. 14).

Rather than repeat the arguments of Appellants or of the Examiner, we refer to the Briefs and the Answer<sup>4</sup> for their respective details. In this decision, we have considered only arguments actually made by Appellants. Arguments Appellants could have made but did not make are not considered and are deemed as waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

*Appellants' Arguments*

For the rejection under § 102, Appellants argue that claims 1, 2, and 4 are patentable because of a contention that a disclosed Cooper lever that is relied on by the Examiner does not teach a claim 1 recited sensor plate in communication with a resilient member (App. Br. 10, 11). Appellants further argue that claims 5 and 6 are patentable because of a contention that Cooper fails to teach a claimed pin bracket as being supported between the resilient member and a seat (App. Br. 11, 12). Additionally, Appellants argue that claims 7, 8, 10, and 11 are patentable because of a contention that Cooper fails to teach a claim 7 limitation for an arm rotatably supported between side plates by a base pin (App. Br. 6-8).

For the rejection under § 103 over Cooper and Aoki '325, Appellants argue claims 12 and 13 are patentable because of a contention that Aoki '325 fails to cure asserted Cooper deficiencies for anticipating base independent claim 7 (App. Br. 8, 9).

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<sup>4</sup> Throughout this opinion, we refer to (1) the Appeal Brief filed Jan. 22, 2008; (2) the Answer mailed Mar. 17, 2008; and (3) the Reply Brief filed May 13, 2008.

Similarly, for the rejection under § 103 over Cooper and Aoki '444, Appellants argue (1) claim 3 is patentable because of a contention that Aoki '444 fails to cure asserted Cooper deficiencies for anticipating base independent claim 1, and (2) claim 9 is patentable because of a contention that Aoki '444 fails to cure asserted Cooper deficiencies for anticipating base independent claim 7 (App. Br. 8).

### ISSUES

Have Appellants shown the Examiner erred in rejecting claims under § 102(b) as anticipated by Cooper? This main issue turns on the following pivotal issues:

Have Appellants shown the Examiner erred in finding Cooper teaches:

- (a) a sensor support mounted sensor plate in communication with a resilient member as recited in claim 1;
- (b) a pin bracket as recited in claims 5 and 6; and
- (c) an arm rotatably supported between two side plates by a base pin as recited in claim 7?

Have Appellants shown the Examiner erred under § 103 in modifying Cooper with Aoki '325 teachings to arrive at the invention recited in claims 12 and 13? This issue turns on whether modification of Cooper by Aoki '325 renders the disputed limitations of independent claim 7 obvious under § 103.

Have Appellants shown the Examiner erred under § 103 in modifying Cooper with Aoki '444 to arrive at the invention recited in claims 3 and 9?

This issue turns on whether Cooper and Aoki '444 collectively render these claims unpatentable.

### FINDINGS OF FACT

The record supports the following Findings of Fact (FF) by a preponderance of the evidence:

#### *Present Application*

1. The Specification of the present application discloses that a “known seat weight measuring device [is] shown in FIGS. 4 to 7.” This acknowledged prior art device has an arm 23 connected at one end to a sensor plate 51 with an attached load sensor 54. The sensor plate 51 is fixed to a sensor support column 63. The weight of seat 3 is transferred from a seat rail 7 to arm 23 using a pin bracket 25. A base pin 31 connects the arm 23 at a support point. The base pin 31 support connection is situated between the pin bracket 25 where the seat weight is applied and the location of the load sensor 54 with sensor support column 63 (Spec. ¶¶ 0005, 0006, 0018, and 0046; Figs. 4-7 (Figs. 4 and 5(A) reproduced below for reference)).



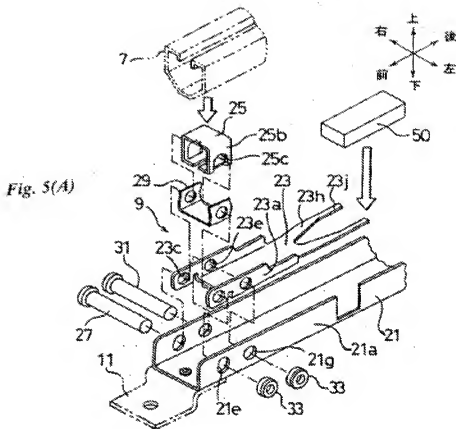
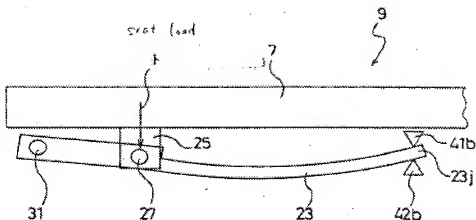


Figure 5(A) of the present application shows an exploded perspective view of a prior art seat weighing device

2. The Specification discloses that the described invention utilizes prior art components shown in Figs. 4-7, but changes the position of pin bracket 25 relative to base pin 31. Instead of positioning base pin 31 between pin bracket 25 and load sensor 54 with sensor support column 63 (*see* Fig. 4 reproduced above), the disclosed invention has the pin bracket 25 for applying the weight of seat 3 positioned between the base pin 31 and the load

sensor 54 with sensor support column 63 (Spec. ¶¶ 0039 and 0040; Fig. 1(B) (reproduced below for reference)).



**Fig. 1(B)**

Figure 1(B) of the present application shows a schematic side view of a disclosed invented seat weighing device

### *Cooper*

3. Cooper discloses a vehicle passenger weighing apparatus 40.

The Cooper apparatus 40 includes a lever 70 rotatably attached at one end by a support pin 66 to a support mount 60 with a second end having a spherically shaped part 78 that contacts a support elastomer body 45. Between the support pin 66 and the spherically shaped part 78, a second support pin 46 connects a central portion of the lever 70 to the weight of a seat frame 42. (Cooper, col. 1, ll. 4-6; col. 2, ll. 5-7, 31-43; Fig. 2).

4. Cooper additionally discloses that a sensor 80, such as a strain gauge, is mounted on a portion of lever 70 that is thinner than the end attached to support mount 60. “The thinner dimension . . . enables the . . . lever 70 to bend, and the sensor 80, in turn, generates an output signal in response to the bending,” which is caused by the weight of seat frame 42 (Cooper, col. 2, ll. 54-62).
5. Cooper further discloses that the second support pin 46 is fixedly attached to seat frame 42 and also rotatably connected to a central portion of lever 70 with a bushing 92 engaging the lever 70 and second support pin 46 (Cooper, col. 2, ll. 34-40, 50-53; Fig. 2).
6. Cooper discloses that seat frame 42 includes a load surface 44, and that two levers 70 are attached to seat frame 42 with separate second support pins 46 (Cooper, col. 2, ll. 18-20, 34-40; Fig. 2).

*Aoki '325*

7. Aoki '325 discloses a vehicle seat weighing apparatus having load sensors that are positioned between the seat and the vehicle body. The seat is connected to the vehicle body by arm mechanisms connected at one end to the vehicle body and at the other end to the seat (Aoki '325 Abstract).

*Aoki '444*

8. Aoki '444 discloses a further vehicle passenger weighing apparatus 9. The Aoki '444 apparatus 9 includes an arm 23 attached, so as to pivot, at one end to a pair of base plates 21a, 21a' by a base pin 31. A pin bracket 25 transmits the weight of a seat 3 to arm 23. The pin bracket 25 is attached to arm 23 by a

- bracket pin 27. There is also an attachment between arm 23 and a sensor plate 51 that is supported by a sensor support column 63. A load sensor 54 is attached to sensor plate 51 (Aoki '444, col. 1, ll. 6-11; col. 5, ll. 28-37, 46-65; Figs. 1 and 3(A)).
9. The Aoki '444 disclosed structures shown in Figs. 1 and 3(A), including identifying element numbers, are substantially identical to the disclosed structures shown in the present application in Figs. 4 and 5(A).
10. Aoki '444 further discloses that the “seat weight measuring apparatus [is] capable of decreasing manufacturing cost and assembly cost and capable of weight measurement with higher precision” (Aoki '444, col. 1, ll. 46-50).

## PRINCIPLES OF LAW

Pending claims, during examination, are given their broadest reasonable construction consistent with the specification. *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004); *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969).

More specifically, a claim term is construed as having “the ordinary and customary meaning . . . that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). It is the use of the words in the context of the written description, and their use as customarily ascribed by those skilled in the relevant art that accurately reflects both the “ordinary” and the “customary” meaning of the terms in the claims. *Ferguson*

*Beauregard/Logic Controls, Div. of Dover Res., Inc. v. Mega Sys., LLC*, 350 F.3d 1327, 1338 (Fed. Cir. 2003).

[The claims] are part of “a fully integrated written instrument,” . . . consisting principally of a specification that concludes with the claims. For that reason, claims “must be read in view of the specification” . . . . [T]he specification “is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.”

*Phillips*, 415 F.3d at 1315 (internal citations omitted).

#### *Anticipation*

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros., Inc. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631 (Fed. Cir. 1987). The inquiry as to whether a reference anticipates a claim must focus on what subject matter is encompassed by the claim and what subject matter is described by the reference. As set forth by the court in *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772 (Fed. Cir. 1983), it is only necessary for the claims to “‘read on’ something disclosed in the reference, i.e., all limitations of the claim are found in the reference, or ‘fully met’ by it.”

#### *Obviousness*

Obviousness is a question of law premised from underlying factual determinations. Therefore, to support a legal conclusion of obviousness in rejecting claims under 35 U.S.C. § 103, the Examiner is required to establish factual bases. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). The required factual determinations are set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966) (stating that 35 U.S.C. § 103 leads to three basic

factual inquiries: the scope and content of the prior art, the differences between the prior art and the claims at issue, and the level of skill in the art).

Addressing what is acceptable combinations of elements from prior art, the U.S. Supreme Court explains:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Sakraida* [v. *AG Pro, Inc.*, 425 U.S. 273 (1976)] and *Anderson's-Black Rock* [v. *Pavement Salvage Co., Inc.*, 396 U.S. 57 (1969)] are illustrative—a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.

*KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007). The operative question in this “functional approach” is thus “whether the improvement is more than the predictable use of prior art elements according to their established functions” (*id.*).

## ANALYSIS

### *Anticipation Rejection Based on Cooper*

#### *Claims 1, 2, and 4*

Appellants do not separately argue rejected claims 1, 2, and 4 (Ans. 3-7), but, instead, contend these claims are patentable because Cooper fails to teach the claim 1 limitation for “a sensor plate and a sensor support . . . in communication with the resilient member” (App. Br. 10, 11; Reply Br. 3, 4

(emphasis added)). We, accordingly, select independent claim 1 as representative. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Appellants argue that the Examiner’s “interpretation of the resilient member and the sensor plate is not reasonable because the lever 70 of Cooper has been interpreted to be two different and distinct claim elements: the resilient member and the sensor plate” (App. Br. 10, 11). Disagreeing, the Examiner responds:

Appellant [sic] is narrowly interpreting the claims to entail limitations that they do not contain. There is no language in the claims that precludes the sensor plate from being integral with the resilient member. To the contrary there is language requiring the sensor plate to be “in communication with the resilient member.” The claim language does not recite or refer to acceptable or unacceptable forms of “communication.”

(Ans. 25). Indeed, claim 1 does not recite any modifying limitation for the “in communication” relationship, and Appellants do not contend that there is any further modifying limitation. Appellants also do not assert any Specification disclosure for construing the recited “in communication” relationship.

Based on the record, we are not persuaded that Appellants have shown that the Examiner erred in concluding that the disputed limitation reads on Cooper lever 70.

A broad reasonable interpretation for the recited “in communication” relationship does not exclude Appellants’ contention that the sensor plate and resilient member can be “two different and distinct claim elements” that are somehow interconnected (App. Br. 10, 11; Reply Br. 3, 4). However, a broad reasonable interpretation *also* encompasses coverage of an integrated structure including both a resilient member and a sensor plate as a combined

structure incorporating both elements. An integrated structure incorporating a resilient member and a sensor plate results in having these elements be “in communication.” Therefore, we are persuaded that the Examiner properly interprets claim 1 by indicating that it “does not recite . . . acceptable or unacceptable forms of ‘communication’” (Ans. 25). We, accordingly, concur with the Examiner that claim 1 reads on the Cooper lever 70 that includes “integrally formed . . . discrete elements” (*id.*). These integrally formed discrete elements comprise first and second portions of the Cooper lever 70 with the second portion having a thinner dimension where the attached sensor 80 reacts to bending caused by applied seat weight (FF 4).

For the foregoing reasons, we concur with the Examiner that the claim 1 disputed limitation reads on Cooper. Accordingly, we will sustain the Examiner’s rejection under § 102(b) of claim 1, and also the rejection of claims 2 and 4 that fall with claim 1.

*Claims 5 and 6*

A.

These claims, rejected under § 102(b) (Ans. 7), are not separately addressed by Appellants. Instead, Appellants assert that they are patentable because Cooper fails to teach the “require[d] . . . pin bracket rotatably supported by a base pin along with the other features of claim 1 from which they depend” (App. Br. 11). This requirement asserted by Appellants is recited in claim 5, whereas claim 6, which depends from claim 5, further narrows the covered structure by reciting “the pin bracket transmits the seat weight to a bracket pin.” Appellants do not raise the claim 6 recited structure as a disputed limitation.

Claims 5 and 6 both depend from claim 1. However, not raised by Appellants is the dependence of both claims 5 and 6 from claim 4. Therefore, both claims 5 and 6 also incorporate every limitation recited in claim 4. *See* 35 U.S.C. § 112, ¶ 4. Claim 4 covers “a pin bracket adapted to be in communication with the seat and the resilient member.”

According to the Examiner, “Cooper teaches the device of claim [4], . . . a pin bracket (46 figure 2) adapted to be in communication with the seat and the resilient member” (Ans. 7). Because we find Cooper element 46 to be a second support pin 46 interconnecting a central portion of lever 70 with a seat frame 42 (FF 3), we concur with the Examiner that the claim 4 covered pin bracket reads on Cooper second support pin 46.

The Examiner, however, disparately finds that Cooper “92 figure 2” teaches the pin bracket of claims 5 and 6 (Ans. 7). We find Cooper element 92 to be a disclosed bushing 92 that provides a rotatable connection between second support pin 46 and lever 70 (FF 5). In the context of either combined claims 4 and 5, or claims 4, 5, and 6, we are not persuaded by the Examiner’s finding the Cooper second support pin 46 and also the Cooper bushing 92 to be alternatively both the claim 4 pin bracket and the claims 5 and 6 pin bracket.

B.

Based on the record, we will affirm the rejection of dependent claim 5 under § 102(b) as anticipated by Cooper. Specifically, we concur with the Examiner that the claim 4 covered pin bracket reads on Cooper second support pin 46. Since claim 5 depends from claim 4, we do not concur with the Examiner that the claim 5 pin bracket reads on Cooper bushing 92.

Instead, we deduce that the claim 5 pin bracket *also* reads on the Cooper second support pin 46.

Claim 4 recites that the “pin bracket [is] . . . in communication with the . . . resilient member.” Claim 5 recites that “the pin bracket is rotatably supported by a base pin.” The Examiner finds that the claim 5 covered base pin reads on Cooper support pin 66 (Ans. 7) that rotatably attaches lever 70 to support mount 60. We concur in these findings with the Examiner (FF 3).

We deduce that the combination of the Cooper second support pin 46 with lever 70, and the Cooper lever 70 being rotatably mounted about Cooper support pin 66, consequently results in the claim 5 recited “pin bracket . . . rotatably supported by a base pin” reading on Cooper.

For the foregoing reasons, we will sustain the rejection of claim 5 under § 102(b) as anticipated by Cooper.

C.

We concur with the Examiner that the claim 4 covered pin bracket reads on Cooper second support pin 46, which interconnects Cooper lever 70 and seat frame 42 (FF 3). We, however, do not concur with the Examiner that this pin bracket as covered by claim 6 pin somehow alternatively reads on Cooper bushing 92. Further, we do not concur that a bracket pin as first recited in dependent claim 6 would somehow read on the Cooper second support pin 46; while the base claim 4 covered pin bracket, which is distinct from the claim 6 bracket pin, would also read on the same Cooper second support pin 46 (Ans. 7). The claim 6 recited bracket pin and pin bracket are disparate structures having distinctly different claimed functions.

Consequently, we will not sustain the rejection of claim 6 under § 102(b), because we do not concur with the Examiner that Cooper teaches the

combined claims 4, 5, and 6 covered pin bracket and bracket pin. *See Verdegaal Bros.*, 814 F.2d at 631.

*Claims 7, 8, 10, and 11*

Appellants do not separately argue claims 7, 8, 10, and 11 rejected under § 102(b) (Ans. 8-12), but, instead, contend these claims are patentable because Cooper fails to teach the claim 7 limitation for an arm rotatably supported between side plates by a base pin (App. Br. 6-8; Reply Br. 1-3).<sup>5</sup> We, accordingly, select independent claim 7 as representative. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Claim 7 covers “a base having two side plates” and “an arm rotatably supported by and interdisposed between the side plates of the base via a base pin.” The Examiner contends these limitations read on a Cooper floor plan 16 including two support mounts 60 (Ans. 8). Further, the Examiner finds the recited arm to read on the Cooper lever 70, and the recited base pin to read on Cooper support pin 66 (Ans. 8, 9).

Appellants acknowledge that Cooper lever 70 is supported by a support mount 60 with a support pin 66, but argue that Cooper lever 70 is not supported by *two* support mounts 60 (App. Br. 6). Disagreeing, the Examiner contends that Cooper teaches one lever 70 being supported by one support mount 60 with a support pin 66 and that this lever 70 also is supported through a Cooper seat frame load surface 44 to a second support mount 60 (Ans. 15). Appellants argue that the Examiner’s contention is an

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<sup>5</sup> Appellants additionally argue that Cooper fails to teach “a pin bracket . . . in communication with the arm via a bracket pin” (App. Br. 7, 8). We do not address this argument because we will not sustain the rejection of representative claim 7 on other grounds.

“admission that the lever 70 is supported by [a] . . . side plate [with a] connection through the load surface 44, and not the pin 66” and that this admission “confirms that Cooper fails to disclose the claimed invention” (Reply Br. 2).

Based on the record, we do not concur with the Examiner’s contention that a Cooper lever 70 is supported by two support mounts 60 with a support pin 66. Instead, we find two Cooper levers 70 being supported by separate support mounts 60 using separate support pins 66, and that each Cooper lever 70 also is interconnected by an attaching second support pin 46 to a seat frame 42, which includes a load surface 44 (FF 6). Therefore, we find that each of the two Cooper support pins 66 interconnects one lever 70 to one support mount 60, not to two support mounts 60. We do not find the Examiner’s argument persuasive that, if one support mount 60 were removed, the Cooper device would no longer operate, because this consequence does not address the claim 7 limitation for an arm to be supported by two side plates “via a base pin.”

For the foregoing reasons, we do not concur with the Examiner that the addressed claim 7 disputed limitation reads on Cooper. Accordingly, we will not sustain the Examiner’s rejection under § 102(b) of claim 7, and also will not sustain the rejection of dependent claims 8, 10, and 11.

*Obviousness Rejection Based on Cooper and Aoki ’325*

*Claims 12 and 13*

Appellants collectively argue the rejection of claims 12 and 13 by asserting that Aoki ’325 fails to cure previously contended Cooper deficiencies for anticipating base independent claim 7. In particular, Appellants assert that Aoki ’325 does not cure Cooper’s deficiency with

respect to “teach[ing] or suggest[ing] an arm rotatably supported by the side plates of the base via a base pin or a pin bracket in communication with the arm via a bracket pin” (App. Br. 8, 9). The Examiner responds by substantively repeating the arguments that were asserted for why Cooper anticipates claim 7 (Ans. 22, 23).<sup>6</sup>

Aoki '325 teaches a vehicle seat weighing apparatus having load sensors positioned between a seat and a vehicle frame (FF 7). The Aoki '325 load sensors are not attached to a sensor plate. The Examiner relies on Aoki '325 for teaching an arm with side plates (claim 12; Ans. 13), and a leaf spring positioned between the arm side plates (claim 13; Ans. 13, 14). The Examiner relied on Aoki '325 teachings that do not address Appellants' contended Cooper deficiencies. Furthermore, the Examiner does not contend that Aoki '325 teachings in any way combine with Cooper teachings to render any claim 7 covered element to be obvious under § 103.

For the foregoing reasons, we do not concur with the Examiner that claim 7 reads on Cooper, or reads on Cooper as modified by Aoki '325. Accordingly, we will not sustain the Examiner's rejection of dependent claims 12 and 13 under § 103.

*Obviousness Rejection Based on Cooper and Aoki '444*

*Claim 3*

Based on the record, we are not persuaded the Examiner erred in rejecting claim 3 under § 103(a).

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<sup>6</sup> The Examiner specifies these arguments as being directed to claim 12. Since Appellants assert the same arguments for patentability of both claims 12 and 13, we understand the Examiner as intending to argue the same response to Appellants' identical assertions.

Appellants have not persuasively rebutted the Examiner's prima facie case of obviousness, but merely contend that Aoki '444 fails to cure previously-noted deficiencies of Cooper with respect to anticipating base independent claim 1. In particular, Appellants assert that Aoki '444 does not cure Cooper's deficiency with respect to "teach[ing] a resilient member and a sensor plate that are two distinct and separate elements" (App. Br. 12).

For the reasons indicated previously, we are not persuaded by these arguments. We will sustain the rejection of base independent claim 1, and since Appellants have not argued as to claim 3 covered elements, we will also sustain the rejection of dependent claim 3.

#### *Claim 9*

Based on the record, we are not persuaded the Examiner erred in rejecting claim 9 under § 103(a).

Appellants contend that Aoki '444 does not cure Cooper as an anticipation reference against base independent claim 7. In particular, Appellants assert that "Cooper does not teach or suggest an arm rotatably supported by the side plates of the base via a base pin or a pin bracket in communication with the arm via a bracket pin" (App. Br. 8). Based on the record, we are not persuaded by Appellants' argument.

We are persuaded by Appellants' arguments that the Examiner erred in rejecting claim 7 under § 102(b) as being anticipated by Cooper (*See supra* pp. 18, 19). However, Aoki '444 discloses a vehicle passenger weighing apparatus 9 that has an arm 23 attached for pivoting at one end to a pair of base plates 21a, 21a' by a base pin 31 (FF 8). Aoki '444 further discloses a pin bracket 25 that transmits the weight of a seat 3 to arm 23 through a pin bracket 25 attached by a bracket pin 27 to arm 23 (*id.*).

Accordingly, we are not persuaded by Appellants' bald assertion, without evidence or explanation, that "Aoki '444 does not cure [Cooper's] deficiencies" (App. Br. 8). After all, the subject Cooper deficiencies arise from claim 7 recited limitations, and claims "are part of 'a fully integrated written instrument,' . . . consisting principally of a specification that concludes with the claims." *Phillips*, 415 F.3d at 1315 (internal citation omitted). In this integrated context, Appellants' Specification discloses substantively identical structure elements to those of Aoki '444 (FF 1 and 9). Moreover, claim 7 recites structure limitations for the same named elements as disclosed by Aoki '444, e.g., side plates, pin bracket, bracket pin, and base pin.

Aoki '444 further discloses that the taught "seat weight measuring apparatus [is] capable of decreasing manufacturing cost and assembly cost and capable of weight measurement with higher precision" (FF 10). Both the Cooper and Aoki '444 devices are in one field of endeavor. Aoki '444 discloses that the taught apparatus provides incentives, i.e., "decreasing manufacturing and assembly costs" with higher measurement precision, which an ordinarily skilled artisan would recognize as addressing real world market forces by improving other devices, e.g., the Cooper device. Further, we do not find in the record any evidence or argument that variation of Cooper with Aoki '444 would preclude achieving a predictable result. Accordingly, we conclude that modification of Cooper with Aoki '444 would provide a predictable use of prior art elements according to their established functions. *See KSR*, 550 U.S. at 417.

For the foregoing reasons, we deduce that the combination of Cooper with Aoki '444 under § 103 renders both claim 9 and base independent

claim 7 unpatentable. Accordingly, we will sustain the current rejection of dependent claim 9 under § 103 over Cooper and Aoki '444.

NEW GROUND OF REJECTION UNDER 37 C.F.R. § 41.50(b)

Under 37 C.F.R. § 41.50(b), we enter a new ground of rejection for claims 6-8 and 10-13 under 35 U.S.C. § 103(a) as unpatentable over Cooper and Aoki '444.

Aoki '444 was cited as a sole § 103(a) reference in rejecting then pending claims 1-13, with the acknowledgement that “Aoki ['444] does not explicitly disclose wherein the device is configured so that the weight of the seat is applied between the at least one support point and the sensor point.” The Examiner thus addressed this matter:

At the time of the invention it would have been obvious to one skilled in the art to switch the position at which the weight of the seat acts, from one pin to the other. Such a change would be a mere rearrangement of parts.

The suggestion or motivation for doing so would be to change to apply a different force at the sensor position. This would allow the invention to adjust the force applied at the sensor position to be within an ideal range.

(Non-final Office action, mailed Dec. 20, 2005, p. 3). Appellants argued that “there has been no motivation or suggestion from the prior art to move the pin bracket” (Pre-Appeal Brief Request for Review, filed Jul. 24, 2006, p. 5). This Aoki '444 § 103(a) rejection was withdrawn in a Notice of Panel Decision from Pre-Appeal Brief Review mailed Nov. 3, 2006.

As addressed above, we will sustain the rejection under § 102(b) of independent claim 1 as being anticipated by Cooper (*see supra* pp. 13-15). Claim 1 covers a device “configured so that the weight of the seat is applied

between the . . . support point and the sensor support.” Therefore, based on the record, we find Cooper teaching structures for application of seat weight, e.g., pin bracket positioning, between a resilient member, or arm, support point, or base pin, and a sensor support, or load sensor. Further, as addressed above with respect to our sustaining the rejection of dependent claim 9 under § 103(a) over Cooper and Aoki ’444, we conclude from the record that modifying Cooper with Aoki ’444 provides a predictable use of prior art elements according to their established functions (*see supra* pp. 21-23). Accordingly, we are persuaded there is motivation to modify Aoki ’444 by moving the pin bracket to be between the arm support and the load sensor as taught by Cooper.

#### *Claim 6*

Claim 6 is rejected under 35 U.S.C. § 103(a) as unpatentable over Cooper and Aoki ’444. Claim 6 depends from claims 1, 4, and 5, and recites having “the pin bracket transmit[] the seat weight to a bracket pin.”

We find, based on the record, that Aoki ’444 teaches a pin bracket 25 attached to an arm 23, i.e., a resilient member, by a bracket pin 27, and the weight of a seat 3 transmitted by the pin bracket 25 to the arm 23 (FF 8). Additionally, we deduce that Aoki ’444 pin bracket 25, bracket pin 27, and base pin 31 in conjunction with arm 23 consistently are read on by claims 4 and 5 limitations for the same named element structures.

For the forgoing reasons, dependent claim 6 is obvious under § 103(a) over Cooper and Aoki ’444.

*Claims 7, 8, and 10-13*

Claims 7, 8, and 10-13 are rejected under 35 U.S.C. § 103(a) as unpatentable over Cooper and Aoki '444. Independent claim 7 is reproduced *supra* at p. 3, and all of claims 8 and 10-13 depend from claim 7.

As addressed above, we will sustain the rejection under § 103(a) of claim 9, which depends from claim 7, as being unpatentable over Cooper and Aoki '444 (*supra* pp. 21-23). Accordingly, for the reasons indicated previously, independent claim 7 is obvious under § 103(a) over Cooper and Aoki '444. Further, dependent claims 8 and 10-13 are likewise obvious for similar reasons.

CONCLUSIONS OF LAW

Appellants have not shown that the Examiner erred in rejecting claims 1, 2, and 4 under § 102(b), because Cooper is read on by the claim 1 sensor support mounted sensor plate in communication with a resilient member, and also the claim 5 pin bracket.

Appellants have shown that the Examiner erred in rejecting claims 6, 7, 8, 10, and 11 under § 102(b), because Cooper is not read on by the claim 6 pin bracket with bracket pin, nor by the claim 7 arm rotatably supported between two side plates by a base pin.

Appellants have shown that the Examiner erred in rejecting claims 12 and 13 under § 103(a), because there is not a proper combination of Cooper and Aoki '325 that renders base independent claim 7 covered subject matter obvious.

Appellants have not shown that the Examiner erred in rejecting claims 3 and 9 under § 103(a), because Cooper renders claim 3 unpatentable, and Cooper and Aoki '444 collectively render claim 9 unpatentable.

### DECISION

We have affirmed the Examiner's rejections of claims 1-5 and 9.

We have not sustained the Examiner's decision rejecting claims 6-8 and 10-13, which rejections are reversed. However, we have entered a new ground of rejection under 37 C.F.R. § 41.50(b) for claims 6-8 and 10-13 under 35 U.S.C. § 103(a) as unpatentable over Cooper and Aoki '444.

### FINALITY OF DECISION

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b), which provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

Furthermore, this section provides that Appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner . . . .

(2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same record . . . .

If Appellants elect prosecution before the Examiner and this does not

result in allowance of the application, abandonment, or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED-IN-PART  
37 C.F.R. § 41.50(b)

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